

that the Musk-Deer was of common occurrence on the Tsánpú river in the neighbourhood of Lhása.

Mr. W. H. Johnson, the Governor of Ladák, informs me that the Musk-Deer is found in the country below and to the east of Lhása, along the course of the Tsánpú river. The musk brought from this district, Mr. Johnson says, has wrongly acquired the name of Khoten musk; this seems to have originated from the fact that when Khoten was a large Buddhist city, and important trading place, the musk was carried there from Lhása, and thence to India. Mr. Johnson also observes that the Musk-Deer occurs only where the birch tree grows.

The whole of this evidence taken together appears to me to afford abundant evidence as to the occurrence of a species of *Moschus* in Tibet, though I have no means of knowing whether it be the same as *M. moschiferus*. The Musk-Deer is of common occurrence in Bhútán, and it appears to me to be probable that it extends north of that district in most of the open countries up to Tibet, and thence across, or round, the Gobi desert into Siberia.

The occurrence of the Musk-Deer far in on the Tibet plateau is a fact of considerable importance, as it is the only instance of any of the large mammals of the forest clad Alpine Himalaya extending its range into the dry and desert regions to the north.

In my former paper, quoted above, I thought it probable that the Musk-Deer occurred in Ladák; this, however, I now find is not the case; I can find no evidence of the animal occurring anywhere in the upper Indus valley.

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### III.—*Note on some Ladák Mammals.*—By R. LYDEKKER, B. A.

*Otter.*—In his report on the Mammalia of the second Yarkand Mission\* (p. 32), Mr. W. T. Blanford mentions that the late Dr. Stoliczka, in his notes, referred to the occurrence of a small species of otter (*Lutra*) in the Indus at Leh, but was unable to procure a specimen.

During the past summer I purchased at Leh a flat skin of an otter, said to have been obtained from the Indus at Shushot, near Leh. This skin is of very dark colour superiorly, and the length of the body-part is about 30 inches; the tips of the hairs are paler. Unfortunately, neither the skull nor the claws remain in my specimen, so that specific determination is quite impossible. The skin, however, seems to be very like that of the European

\* 'Scientific Results of the Second Yarkand Expedition,' Mammalia, by W. T. Blanford. Calcutta, 1879.

otter (*L. vulgaris*), and the animal, therefore, may very possibly belong to the same species as a skin obtained by Major Biddulph in Gilgit (? from the Indus), and which Mr. Blanford, in the above-quoted note, thinks is very like *L. vulgaris*.

I learn from Mr. Elias, the British Joint-Commissioner at Leh, that otters are said to be of common occurrence at the bridge which spans the Indus below Leh; these otters live in the stone-work piers of the bridge. I may add that Mr. Elias has promised to endeavour to procure a specimen of the skin and skull of one of these animals.

Dr. Stoliczka speaks of the Leh otter as being a small species; since, however, he never procured a specimen, and as my specimen is a large skin, it is probable that Stoliczka's estimate of size was not exact.

*Marmots.*—I cannot quite agree with Mr. Blanford\* in calling the Red Marmot (*Arctomys caudatus*) the common marmot of Ladák, as it appears to me that the species is only found on the outskirts of that region. I have procured specimens of that species on the range between Kashmir and Tilel (Kishenganga valley), on the pass between Tilel and Drás, and on both sides of the Zoji-Lá, separating the latter place from Kashmir. I have, however, never seen this species in the more interior parts of Ladák, where it appears to me to be replaced by *Arctomys himalayanus*, or the Yellow Marmot, which appears to me to be entitled to be called the "Ladák Marmot" *par excellence*. I have seen or procured specimens of the latter species, from the mountains above Khalchi, on the Indus; on the pass separating the Markha river from the Gia river, to the south of Leh; and, still further south, on Kiang-Chu Maidán, in Rúpsú; to the north of the Indus in Ladák, on the Chang and Kai passes, forming the watershed of the Indus and Shyok rivers; around the Pangong lake; and in the Chang-Chemno valley. *Arctomys caudatus* seems to me to be confined to the country on the confines of the rainless districts, while *A. himalayanus* occurs only in the inner, and thoroughly Tibetan, districts.

In the field, the two species can be at once distinguished by their respective cries. The cry of the Red Marmot is a peculiar long screaming whistle of great shrillness: the Yellow Marmot on the other hand utters a short chirping bark. It is not easy to convey an idea of the two sounds to the reader, but when they have been once heard in the field, they never can be mistaken for one another.

I should be much inclined to doubt the suggestion of Mr. Blanford† that the marmot said by Dr. Stoliczka to range up to a height of 17,000 feet in Ladák is *A. caudatus*; it is much more likely to be *A. himalayanus*, which I have killed above 18,000 feet; the former I have never seen above 14,000 feet (Drás and Tilel pass).

\* Loc. cit. p. 37.

† Loc. cit. p. 39.